

General

Title

Metabolism and nutrition: percentage of patients undergoing invasive mechanical ventilation (MV) greater than 48 hours who receive prophylaxis against gastrointestinal bleeding (GIB).

Source(s)

Quality indicators in critically ill patients. Madrid (Spain): Spanish Society of Intensive and Critical Care and Units Coronary (SEMICYUC); 2011. 185 p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of patients undergoing invasive mechanical ventilation (MV) greater than 48 hours who receive prophylaxis against gastrointestinal bleeding (GIB).

Rationale

The aim of intensive care medicine is to provide critical patients with the healthcare that they need, ensuring the quality and safety of care. Intensive care medicine is one of the principal components of modern healthcare systems. There is an increasing demand for this resource, which involves high costs.

The quality of care has gradually come to be the central focus of healthcare, and in recent years patient safety has come to represent one of the key aspects of quality. In the case of intensive care medicine, this interest in quality is even more evident, not only because of its social and economic impact, but also because some of the dimensions involved in the quality of care of critical patients take on greater importance: critical patients are more vulnerable, access to critical care is more limited so efforts to

distribute resources equitably are more important, scant scientific evidence is available, and the efficiency is limited.

Gastrointestinal bleeding (GIB) is a relatively uncommon complication in critical patients. The main cause of GIB is acute lesions of the gastric mucosa related to stress. Different strategies have proven effective in preventing GIB in selected critical patients, such as patients undergoing invasive mechanical ventilation (MV) for more than 48 hours. The appearance of GIB increases the risk of death and prolongs the stay.

Evidence for Rationale

Ali T, Harty RF. Stress-induced ulcer bleeding in critically ill patients. *Gastroenterol Clin North Am*. 2009 Jun;38(2):245-65. [100 references] [PubMed](#)

Cook DJ, Griffith LE, Walter SD, Guyatt GH, Meade MO, Heyland DK, Kirby A, Tryba M, Canadian Critical Care Trials Group. The attributable mortality and length of intensive care unit stay of clinically important gastrointestinal bleeding in critically ill patients. *Crit Care*. 2001 Dec;5(6):368-75. [PubMed](#)

Ojiako K, Shingala H, Schorr C, Gerber DR. Famotidine versus pantoprazole for preventing bleeding in the upper gastrointestinal tract of critically ill patients receiving mechanical ventilation. *Am J Crit Care*. 2008 Mar;17(2):142-7. [PubMed](#)

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Primary Health Components

Metabolism; nutrition; invasive mechanical ventilation (MV); gastrointestinal bleeding (GIB); prophylaxis

Denominator Description

Total number of patients undergoing invasive mechanical ventilation (MV) greater than 48 hours discharged from the critical care department (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Number of patients undergoing invasive mechanical ventilation (MV) greater than 48 hours who receive prophylaxis against gastrointestinal bleeding (GIB) (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

Unspecified

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Hospital Inpatient

Intensive Care Units

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

Age greater than or equal to 18 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Getting Better

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

Unspecified

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Institutionalization

Therapeutic Intervention

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

Total number of patients undergoing invasive mechanical ventilation (MV) greater than 48 hours discharged from the critical care department

Population: All patients admitted to the critical care department undergoing invasive MV during the period reviewed.

Exclusions

Invasive MV less than 48 hours

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Number of patients undergoing invasive mechanical ventilation (MV) greater than 48 hours who receive prophylaxis against gastrointestinal bleeding (GIB)

Note:

Prophylaxis against GIB: Protocolized administration of one of the following from the start of invasive MV:

Proton pump inhibitors

H₂ receptor antagonists

Enteral nutrition (EN) aimed at preventing GIB

Failure to administer one of the above for greater than 24 hours counts as no prophylaxis.

Exclusions

Unspecified

Numerator Search Strategy

Institutionalization

Data Source

Electronic health/medical record

Paper medical record

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Prescriptive Standard

Standard: 95%

Evidence for Prescriptive Standard

Quality indicators in critically ill patients. Madrid (Spain): Spanish Society of Intensive and Critical Care and Units Coronary (SEMICYUC); 2011. 185 p.

Identifying Information

Original Title

Prophylaxis against gastrointestinal bleeding in patients undergoing invasive mechanical ventilation (MV).

Measure Collection Name

Quality Indicators in Critically Ill Patients

Measure Set Name

Metabolism and Nutrition

Submitter

Spanish Society of Intensive and Critical Care and Units Coronary - Clinical Specialty Collaboration

Developer

Spanish Society of Intensive and Critical Care and Units Coronary - Clinical Specialty Collaboration

Funding Source(s)

Boehringer Laboratories

Composition of the Group that Developed the Measure

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Financial Disclosures/Other Potential Conflicts of Interest

Unspecified

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2011 Mar

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

2016 Jul

Measure Status

This is the current release of the measure.

The measure developer reaffirmed the currency of this measure in May 2016.

Measure Availability

Source available in [English](#) and [Spanish](#) from the Spanish Society of Intensive and Critical Care and Units Coronary (SEMICYUC) Web site.

For more information, contact SEMICYUC at Paseo de la Reina Cristina, 36, 4^o D, Madrid, Spain; Phone: +34-91-502-12-13; Fax: +34-91-502-12-14; Web site: www.semicyuc.org ; E-mail: secretaria@semicyuc.org.

NQMC Status

This NQMC summary was completed by ECRI Institute on January 6, 2014. The information was verified by the measure developer on February 26, 2014.

The information was reaffirmed by the measure developer on May 10, 2016.

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Production

Source(s)

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